IT Initiative Supplement

February 25, 2010

I. Project Description

Project Title: Statewide Automated Child Welfare Information System (SACWIS) Replacement
Brief Description of the Project Title: The Montana Automated Child Welfare Information System (MACWIS) project will replace Child and Adult Protective Services system (CAPS), the State's current SACWIS application. CAPS is a mainframe-based system used in the monitoring of foster care cases, adoption cases, provider contracts and licensing, financial accounting, payments for services to providers and reporting. In the face of ever growing federal changes to Child and Adult Protective Services, increased requirements for safeguarding security and confidentiality, and aging technology, it is no longer cost-effective to attempt to meet future business needs with CAPS enhancements. Implementation of this replacement has been postponed.

Statewide Priority: 1
Agency Priority: 1
Estimated Completion Date: FY2010
IT Project Biennium: FY2010-11
Request Number:
Version:

Agency Number: 6901
Agency Name: Department of Public Health and Human Services
Program Number:
Program Name: Child and Family Services Division

A. Type of Project (check all that apply)

Enhancement	
Replacement	**X**
New	
O&M	

B. Type of System (check all that apply)

Mid-Tier	**X**
Mainframe	
GIS	
Web	**X**
Network	
Desktop	

II. Narrative

C. Executive Summary

The Montana Automated Child Welfare Information System (MACWIS), will replace Montana's current legacy child welfare system with a federally certified system that combines modern information technology practices and tools with a high degree of system integration and usability.

Due to a shortfall in the State's general fund balance that triggered actions prescribed by 17-7-140 Montana Code Annotated (MCA), the DPHHS, along with other agencies in the State of Montana, was directed by the Governor's office to submit a list of recommended budget reductions. Recommendations submitted by the DPHHS included a postponement of the MACWIS project.

In addition to budgetary considerations, this project was selected for postponement in order to allow the DPHHS more time to build the internal staff capacity necessary to support a system development effort the size and complexity of MACWIS. Funding for MACWIS was appropriated during the 2007 legislative session in House Bill 4 (HB4), the Long Range Information Technology (LRIT) bill.

Project Purpose and Objectives:

The purpose for MACWIS is to improve the availability and quality of the information necessary for the effective delivery of timely and accurate services required to protect Montana's at risk children, to help preserve Montana families, and to provide data integrity and system availability.

MACWIS will provide the all the functionality required of a federally certified SACWIS. It will also provide Montana specific functionality along with the expected availability and quality of information necessary for the effective delivery of timely and accurate services required to support Montana's child welfare program.

The MACWIS project has the following objectives:

- Increase the efficiency of the collection, reporting, and analysis of data at the state program level.
- Enable administrators to measure performance and quality by assessing the timeliness, efficiency, appropriateness, and effectiveness of services.
- Improve program management, security, quality assurance and program services.
- Reduce the time and cost required to make modifications and enhancements.
- Automate business rules through the use of new technology.
- Improve interfaces with Title IV-A (TANF), Title IV-D (Child Support Enforcement), Title XIX (Medicaid) and the State's financial and administrative systems.
- Provide secure access to providers.

- Enhance decision support through user accessible data mining and analysis functionality.

Technical Implementation Approach:

Montana's new SACWIS will employ advanced software engineering principles and architecture to create a secure web-based system that allows for ease of use and facilitates information exchange with other State of federal systems. The ideal platform of MACWIS is envisioned to possess the following (or similar) tools and technologies:

- A relational database management system (RDBMS). Oracle is the Department's preferred RDBMS and the standard for the State of Montana.
- An application server to serve as the web and application server (also sometime referred to as the "middle tier").
- An object oriented development platform (e.g. Java, Second Edition, Enterprise Edition (J2EE)) as the development and runtime environment.
- A dynamic user interface (web pages) that provide communication between the user and the middle tier (e.g. JavaServer Pages).
- Technology to isolate and map the underlying relational database from the object-oriented development environment (e.g. Red Hat Hibernate).
- A Business Rules Engine (e.g. ILOG's JRules) that provides a repository and interface for policy and business rules that can be defined and understood by business analysts and policy experts.
- A Service Oriented Architecture (SOA) to enable information sharing and exchange with other State and federal systems.

Project Schedule and Milestones:

1. **Estimated start date**: TBD
2. **Estimated end date:** TBD
3. **Major project milestones**

Table B Schedule

Project Milestone	Planned Start Date	Actual Start Date	Planned Finish Date	Actual Finish Date	Percent Complete
Feasibility Study/Alternatives Analysis	1/22/2009	1/21/2009	5/7/2009	11/30/2010	100%
Acquire QA/IV&V Consultant	09/21/2009	06/30/2009	11/24/2009	Postponed	26%
Requirements Definition (e.g., Requirements Definition Sessions, Software Requirements Document, RTM)	1/28/2009	1/28/2009	9/25/2009	Postponed	93%

Table B Schedule

Project Milestone	Planned Start Date	Actual Start Date	Planned Finish Date	Actual Finish Date	Percent Complete
MACWIS Development RFP	5/11/2009	7/13/2009	2/9/2009	Postponed	17%
Contract Award	1/16/2010	NA	8/10/2010	Postponed	0%

Business and IT Problems Addressed

The Child and Adult Protective Services (CAPS) system is Montana's current child welfare system. This system is critical in supporting the services required to protect children from abuse and neglect, a key aspect of the Department's mission to improve and protect the health, well-being, and self-reliance of all Montanans. As a Statewide Automated Child Welfare Information System (SACWIS), CAPS is utilized by the Child and Family Services Division (CFSD) to facilitate the case management of child and adult protective services, services to juvenile probation and parole, services to youth in the State's youth institutions, tribal social services and licensing activities.

CAPS, now more than 12 years old, has the following issues and deficiencies that put it at risk and comprise the Department's ability to support its child welfare program:

- CAPS is not SACWIS compliant and does not meet all of the needs of state child welfare practice. These findings were noted in the November 15, 2007 Montana CAPS site visit report.
- Built on technology that was outdated at the time of implementation, CAPS is substantially at risk for serious failure and is very expensive to maintain. CAPS maintenance costs average $1.49M per year.
- CAPS requires considerable training, is difficult to use, and does not promote and enforce the accurate entry of information. Workers must memorize hundreds of three, four and five digit codes. Workers often fail to enter complete or correct data. Furthermore, staff will often limit the data they input due to the cumbersome and time consuming process to enter case information.
- Incomplete and erroneous data entered into CAPS often results in inaccurate federal, state and local management reports.
- Lack of integration of data and processes results in missing data that hamper decision making. For example, data entered into the document generation component of CAPS or into case management files stored on local-office file servers are not captured by the CAPS database and therefore unavailable to workers.

D. Alternative(s)

Alternatives Considered:

1. What alternatives were evaluated?

   Montana intends to evaluate several options for a new SACWIS:
   a. Re-engineer and enhance the existing CAPS systems
   b. Transfer and customize an existing SACWIS from another state
   c. New ground-up system design and development

2. What are the estimated costs of the various alternatives over a 5 year period?

   The estimated cost of implementing a new SACWIS is approximately $30 million.

3. Why was the preferred alternative selected over the other alternatives?

   A preferred alternative has not yet been selected. Alternatives will be evaluated from responses to an RFP. Best value will be measured by functionality, usability, level of automation, ease of system integration and data sharing, technology standards, cost of implementation, and cost of long-term maintenance and support.

Rationale for Selection of Particular Alternative:

E. Narrative Detail

III. Costs

G. Estimated Cost of Project:

Estimated Cost of Project		FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
1.	Personal Services - IT Staff	365,019						365,019
2.	Personal Services - Non IT Staff							0
3.	Contracted Services	503,929						503,929
4.	ITSD Services							0
5.	Hardware	1,500						1,500
6.	Software							0
7.	Telecommunications	6,346						6,346
8.	Maintenance							0
9.	Project Management							0
10.	IV & V							0
11.	Contingency							0

12.	Training	3,200						3,200
13.	Other	25,463						25,463
Total Estimated Costs		905,457	0	0	0	0	0	905,457

Total Funding:

IV. Funding

H. Funding

Total Funding

Fund		FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
1.	03598	452,729						452,729
2.	05135	452,729						452,729
3.								0
4.								0
5.								0
6.								0
Total Estimated Costs		905,457	0	0	0	0	0	905,457

Cash/Bonded:

Bill Number:

V. Cost upon Completion

1. Operating Costs upon Completion

Estimated Cost of Project		FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
1.	Personal Services - IT Staff	365,019						365,019
2.	Personal Services - Non IT Staff							0
3.	Contracted Services	503,929						503,929
4.	ITSD Services							0
5.	Hardware	1,500						1,500
6.	Software							0
7.	Telecommunications	6,346						6,346
8.	Maintenance							0
9.	Project Management							0
10.	IV & V							0
11.	Contingency							0
12.	Training	3,200						3,200
13.	Other	25,463						25,463
Total Estimated Costs		905,457	0	0	0	0	0	905,457

2. Funding Recap

Total Funding

Fund		FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
1.	03598	452,729						452,729
2.	05135	452,729						452,729
3.								0
4.								0
5.								0
6.								0
Total Estimated Costs		905,457	0	0	0	0	0	905,457

V. Risk Assessment

A. Current IT Infrastructure Risks

1. Current application 10+ years old? _Yes__
   Date of last major upgrade?

   The current application, the Child and Adult Protective Services (CAPS) system, undergoes continual enhancements to support changing business need and federal program requirements.

2. Current application is based on old technology? _Yes__
   If yes, what is the current hardware platform, operating system, and programming languages used to support the application?

   CAPS operates in an Integrated Database Management System (IDMS) Version 16.0 environment. The application runs under ZOS v1.5 on the IBM Z800 2066-002 mainframe operated by the Department of Administration (DOA) Information and Technology Services Division (ITSD). The CAPS online dialogs are written in ADS/O and the batch modules are written in MVS COBOL, DC COBOL, and Culprit.

3. Is the agency not capable of maintaining the current application with internal technical staff?
   _Yes__

   If yes, who supports the application today?

   CAPS is supported in Maintenance and Enhancement by Northrop Grumman.

4. Other IT infrastructure risks? __Yes_
   If yes, provide further detail.

   IDMS Mainframe based processing using COBOL programming language is probably the biggest risk associated with CAPS.

- While still quite powerful, mainframe data processing, management, access and maintenance costs are increasingly prohibitive when compared with the newer web-based technologies.
- COBOL is an obsolete programming language that takes time to modify, write and debug, translating to increase M&E expense and decreased service
- The database reporting capability of COBOL based systems is not as flexible as that of newer technologies. This impedes the Department's ability to obtain comprehensive data in an environment of ever increasing data needs.
- While the IT industry continues to expand toward Oracle based applications, the pool of programmers skilled in COBOL continues to decrease, which presents risk to both maintenance and enhancement.

B. Current Business Risks

1. What are the risks to the state if the project is not adopted?

a. Lack of available staff with skills in legacy technology
b. Increased cost for enhancement, maintenance and support
c. Decreasing ability to implement federal and state mandates

2. Does the current application meet current business requirements? __No_
If "no", what specific business functions does the application lack?

The current system lacks new web-based technologies operating with enhanced programming languages that offer the flexibility to meet current business requirements. Also, the original concept of CAPS as an enterprise unto itself is being revised to meet the reality that CAPS is a part of a greater enterprise, which allows optimization of interfaces, data sharing capability and processes to ensure a more seamless delivery of service.

1. Describe any major obstacles to successful implementation and discuss how those obstacles will be mitigated.

Table H Risk Assessment

Description	Severity (H/M/L)	Probability of Occurrence (%)	Estimated Cost	Mitigation Strategy
Multiple large projects for the agency and resulting staff availability	H	100%	10% of total	Coordinate between TSD, DPHHS Director's Office, ITSD, and Governor's Office.
Project management	M	50%	10% of total	Secure skilled and experienced project management team (internal and external).
Cost management	M	20%	5% of total	Execute firm fixed price agreement with selected vendor.